IN THE CLAIMS

1. (Amended) A ~~method~~process for the preparation of H_2O_2, wherein[[,]] ~~H_2O_2 is produced~~

[[by]]a first ~~reaction~~stage, electrolysis converts[[ing]] H_2SO_4 into H_2 and $H_2S_2O_8$, and ~~then~~

in a second ~~reaction~~stage, said $H_2S_2O_8$ ~~formed in first reaction, is~~ reacts[[ed]] with H_2O ~~in a second reaction~~ to form H_2O_2 and H_2SO_4, ~~and~~ wherein

a membrane performs at least one selected from of a group consisting of: ~~the~~ separation of said H_2 from said $H_2S_2O_8$, separation of said H_2 from ~~a mixture of~~ said $H_2S_2O_8$ and said H_2SO_4, separation of said H_2O_2 from said H_2SO_4, ~~the~~ separation of said H_2O_2 from said $H_2S_2O_8$, separation of said H_2O_2 and H_2O~~water~~ from said H_2SO_4, ~~the~~ separation of said H_2O_2 from ~~a mixture of~~ said H_2SO_4 and said $H_2S_2O_8$, separation of said H_2O from H_2SO_4, ~~the~~ separation of said H_2SO_4 from said $H_2S_2O_8$ and any combination therein ~~is performed with a membrane~~.

2. (Amended) The ~~method~~process of claim 1, wherein ~~the first reaction does not go to completion and wherein, a mixture of~~ said H_2SO_4 and said $H_2S_2O_8$ is reacted with H_2O in the second ~~reaction~~stage.

3. (Amended) The ~~method~~process of claim 1, wherein said membrane ~~is constructed~~comprises organic materials.

4. (Amended) The ~~method~~process of claim 1, wherein said membrane ~~is constructed~~comprises inorganic materials.

5. (Amended) The ~~method~~process of claim 1, wherein said H_2SO_4 [[in the]]from said second ~~reaction~~stage is recycled to [[the]]said first ~~reaction~~stage.

6. (Amended) The ~~method~~process of claim 1, wherein said electrolysis is performed across an electrically charged ~~conductive~~ membrane.

7. (Amended) The ~~method~~process of claim 1, wherein said electrolysis is performed with electrodes.

8. (Amended) The ~~method~~process of claim 7, wherein said electrodes are ~~made of~~comprise at least one selected from the group consisting of: zirconium, hastelloy, ceramic[[and]], titanium and any combination therein.

9. (Amended) The ~~method~~process of claim 1, wherein at least one of [[the]]said separation [[processes]]is performed with distillation.

10. (Amended) The ~~method~~process of claim 9, wherein said distillation separates said H_2 from ~~at least one of:~~ said H_2SO_4 and/or said $H_2S_2O_8$.

11. (Amended) The ~~method~~process of claim 9, wherein said distillation separates said H_2O_2 from ~~at least one of:~~ said H_2SO_4 and/or said $H_2S_2O_8$.

12. (Amended) The ~~method~~process of claim 9, wherein said distillation separates said H_2O from ~~at least one of:~~ said H_2SO_4 and/or said $H_2S_2O_8$.

13. (Amended) The ~~method~~process of claim 1, wherein said second ~~reaction~~stage contains an excess of said H_2O, and wherein

an aqueous concentration of said H_2O_2 is generated.

14. (Amended) The ~~method~~process of claim 1, wherein H_2O is added to said H_2O_2 from said second ~~reaction~~stage.

15. (Amended) The ~~method~~process of claim 1, wherein there is no vehicular transportation of said H_2O.

16. (Amended) The ~~method~~process of claim 1, wherein said H_2 ~~produced in the first reaction~~ is utilized in a fuel cell to generate electricity.

17. (Amended) The ~~method~~process of claim 16, wherein at least a portion of said electricity is used for the electrolytic conversion of said H_2SO_4 into said H_2 and said $H_2S_2O_8$.

Please cancel claims 18 through 34.